

Revisional notes on lycaenid butterfly species assigned to *Ultraaricia* Beuret (Lycaenidae)

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Originally monotypic genus *Ultraaricia* Beuret (1959: 84) was erected to include *Lycaena anteros* (Freyer, 1839: 101, pl. 265, fig. 1), distinct from other species assigned to *Aricia* R. L. (s. l.) by the upperside wing colour, androconial scales and, especially, by the male genitalia characters. The taxonomic status of *Ultraaricia* (generic or subgeneric rank) might be suggested later on, after investigation of the related taxa (*Aricia* s. str. and *Pseudoaricia* Beuret) have been completed. At present it seems wise to consider *Ultraaricia*, along with just mentioned genus-group taxa as a subgenus of *Aricia*, consisting of four species that form a compact group, fairly homogenous by the male genitalia. In lateral projection, visible half of uncus presented in two processes: superior, straight or curved dorsally, pointed at apex, and inferior that terminates with rounded or abrupted lobe; brachia short, strongly chitinized, their distal part almost straight (cf. Sauter, 1968: 6; Higgins, 1975: 147).

The range of locally distributed populations of *Aricia* (*Ultraaricia*) *anteros* extends from Balkan Peninsula on the West to the E. Turkey (and Syria?) on the East; three other species are confined to strictly limited area, overlapping the *anteros* range at its margins, and until now they still remain extremely little known.

In this paper I summarize all significant literary data and materials of the most important collections in the U.S.S.R. in order to clarify the taxonomic content of *Ultraaricia* and provide confident criteria for identification of species.

All author's remarks in citations throughout the text are given in square brackets. Geographic names in citations given in their original spelling, as they were used by the authors and/or by collectors; in cases of significant changes, modern names are given in square brackets in order to help their location on recent maps. Vein and cell terminology after Miller (1969).

Materials of the following collections are incorporated in this study: Zoological Museum of the Kiev State University (KU), Zoological

Institute of the U.S.S.R. Academy of Sciences, Leningrad (ZL), the collection of Mr. A. V. Tsvetajev, Moscow (ATs) and the collection of the author (YN).

Key to *Ultraaricia*-species (males).

- 1 (2) Fore- and hindwing upperside bears complete series of orange-brown submarginal lunules; ground colour dark brown, suffused with brilliant blue-green scales; fringes grayish. *vandarbani* Pfeiffer.
- 2 (1) Orange-brown submarginal lunules absent, at least on the forewing. 3
- 3 (4) Wings upperside gleaming blue, with black of shaded dark marginal borders; fringes white, incompletely chequered (black streaks do not reach the outer margin of the fringe). 5
- 4 (3) Wings upperside shaded grayish-blue; fringes white, completely chequered (black streaks reach the outer margin of the fringe). *crassipuncta* Christoph
- 5 (6) Forewing underside with black spot in discal cell. n. sp. named on p.
- 6 (5) Forewing underside without black spot in discal cell, *anteros* Freyer.

Aricia (Ultraaricia) anteros (Freyer)

Freyer's figure of this species leaves no doubt as to its identity. Exact characteristics given by Sauter (1968) and recent illustrated description of Higgins & Riley (1970) and Higgins (1975) make its determination easy and unambiguous; a good description is given also by Rühl (1895).

Aricia (Ultraaricia) anteros anteros (Freyer)

Papilio anteros Freyer, 1838: 101, Tab. 265, Fig. 1. Type locality: Constantinople.

Lycaena anteros (Freyer) — Hedemann, 1876: 155 ([Georgia]: Manglis[i]); Christoph, 1877: 200 Kurusch und Pasnaur [ssp.?]: Staudinger, 1879: 240 (Kleinasien: Jenukeui-Hochebene, Amasia, Pera, Brussa, Taurus, Syrien [sspp.?]); Christoph, 1881: 165 ([Georgia]: Bakurian [i], 9000', Acht-Persky-Bergen [? ssp. *dombaiensis* Alberti]); Romanoff, 1864: 52 (Transcaucasie: Borjom, Manglis, Passanaour, Artvin, Istidara [sspp.?]); Rühl, 1895: 263–264, 759 (bei Borshom (westlicher Kaukasus), bei Pera (Türkei), Samsun und Tokat (Kleinasien), in Bulgarien, in der Dobrudscha; auf dem Parnassus, bei Kurusch und Pasnaur; Achty am Samur-Fluß (südliches Daghestan), Jenukeui-Hochebene bei Amasia, Brussa, Taurus (sehr groß), Derbent, Syrien [sspp.?]); Radde, 1899: 420 ([Passanauri, Borzhomi]); Staudinger &

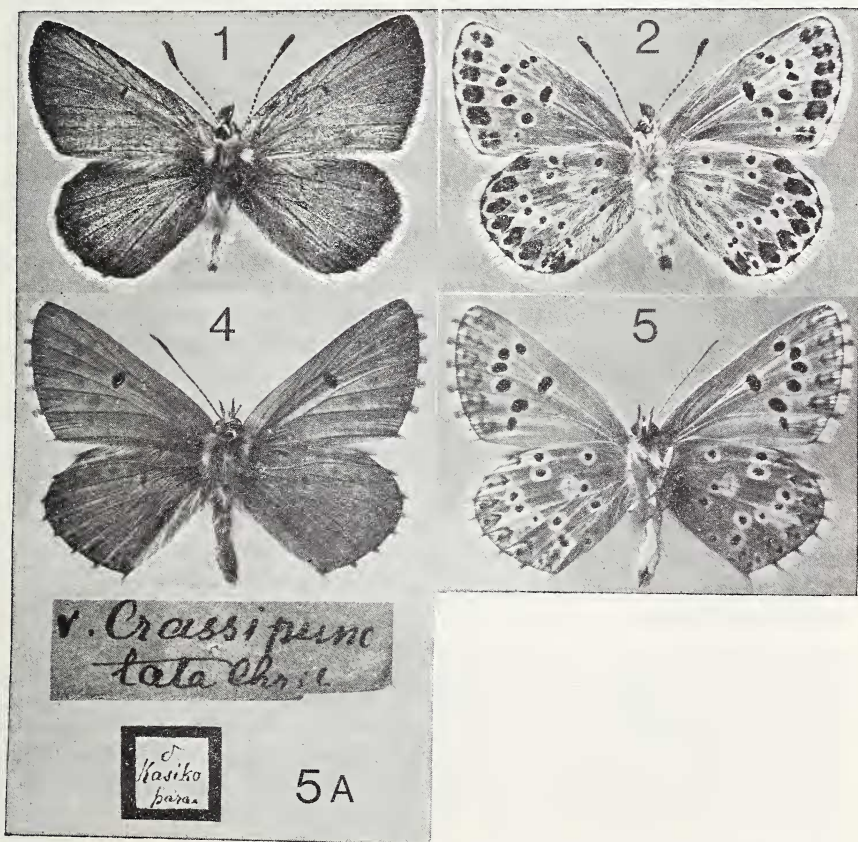
Rebel, 1901: 84 (Balc; Rumaen; Pont; Arm; Taur.): Seitz, 1909: 310–311, Taf. 80c („Hauptsächlich auf der Balkan-Halbinsel, in Klein-Asien und Syrien“).

Polyommatus anteros (Freyer) – Lattin, 1951, 324 („Im Bosphorus-Gebiet (Emirgan, Beykoz), Iznik-gölü“).

Polyommatus (Aricia) anteros (Freyer) – Forster, 1939: 113–114, Taf. 1, Fig. 6.

Aricia anteros (Freyer) – Higgins, 1966: 215 (Turkey: Istanbul, Bursa, Bolu, Ankara, Konya, Yozgat, Samsun, Bitlis [sspp.?]); Higgins & Riley, 1970: 285–286, pl. 55, fig. 5 (description); Higgins, 1975: 147 (genitalia); Moucha, 1969: 272 (Georgia: Kodžori).

Ultraaricia anteros (Freyer) – Beuret, 1959: 84; Sauter, 1968: 10.



Figs. 1–2. *Aricia (Ultraaricia) anteros* cf. *dombaiensis* (Alberti), ♂, upper- and undersides. Georgia, Bakuriani, 1500 m, 27. V. 1977, Y. Nekrutenko leg. (YN).

Figs. 4–5. *Aricia (Ultraaricia) crassipuncta* (Christoph), ♂ lectotype, upper- and undersides. 5a – labels.

Aricia (Ultraaricia) anteros (Freyer) — Korshunov, 1972: 365 S. European part of the U.S.S.R., Crimea (?), Caucasus).

Examined material. 2 ♂♂, 1 ♀, Adzhi-Kent, 24. V. 1909, L. Sheljuzhko leg. (KU); 10 ♂♂, 1 ♀, Abas-Tuman [Abastumani] 23. VI. — 7. VII. 1914, L. Sheljuzhko leg. (KU); 1 ♂, Borzhom, V. 1917, Matissen leg. (KU); 4 ♂♂, *ibid.*, 15. VI. [year?], A. Kastshenko leg. (KU ex coll. P. Trussevitsh; 1 ♀, Manglis, 21. V. 1909 1 (KU); ♂, Tseia, 8000', subalp. meadow, 6. VIII. 1931, M. Rjabov leg. (KU); 9 ♂♂, Armenia, Tsachkadzor, Daotshishag, 20–26. VI. 1920, V. Gamburtsev leg. (ATs); 4 ♂♂, Armenia, Goris, 1700 m, 26. VI. 1974, A. Tsvetajev leg. (ATs); 3 ♂♂, Nachitshevan, Bitshenek (Mtes Zangezur), 2300 m, 30. VI. 1974, A. Tsvetajev leg. (ATs); 1 ♂, Anatolia c., Amasya, vic. Borabay (Gölü), 1000 m, 20. VI. 1975, G. Hesselbarth leg. (YN); 1 ♂, Anatolia, prov. Çankiri, Ilgaz-Dağı-Pass, 1800 m, 7. VII. 1976, G. Hesselbarth leg. (YN); 1 ♂, Anatolia sept., prov. Bursa, Uludağı, 26. VII. 1973, G. Hesselbarth leg. (YN); 3 ♂♂, Turkey, prov. Bursa, Uludağı, 1200 m, Epstein leg. (ATs); 1 ♂, Therapia ad Bosporus, 21. IV. 1921, G. Pronin leg. (KU); 20 ♂♂, labelled "Graecia", "Asia Minor", "Morea" (KU).

A review of this material shows well pronounced spatio heterogeneity of external characters: size, colour, peculiarities of the underside wing pattern, different degree of hindwing upperside orange submarginal lunules development. There is no doubt that over the Transcaucasia and Asia Minor the species is represented by a number of subspecifically distinct populations connected with more or less sharp clinal intergradations. However, the lack of adequate material gives no possibility to point out the regularities in spatial differentiation. The general picture is also obscured by the fact, that, depending on elevation, butterflies may develop in one or more broods.

Aricia (Ultraaricia) anteros dombaiensis (Alberti), *comb. nov.* (Figs. 1–2).

Lycaena anteros dombaiensis Alberti, 1969: 197, Taf. 2, Fig. 1 c. Type locality: "Tschutschchur-Paß bei Dombai", Teberda, N. Caucasus, 2200–2900 m.

Original description is informative enough to facilitate reliable determination. The subspecies is distinct by the extremal reduction of orange submarginal lunules on the male's hindwing upperside; in most specimens examined, including topotypic, these lunules occurred absent. It remains unknown, why Alberti figured a male's underside, which bears no taxonomic characters.

Male genitalia (fig. 3). Similar to *A. (U.) anteros anteros*; in lateral projection anterior process of uncus forming a curved line, lobe of the inferior process triangular, pointed at top (10 specimens dissected.)

Female is characteristic with dark, almost black ground colour of the wing upperside; forewing discal spot small but well visible, submar-

ginal orange-brown lunules reduced in size on hindwing, vestigial, diffused, almost invisible on forewing. Black streaks of the forewing fringe coalescent, so that the fringe appears gray. Wings underside an in male, all spots are bold, ground colour vivid brown-gray.

Examined material. 7 ♂♂, 3 ♀♀, Teberda (Cauc. s.) ms. Chatipara, 2300 m, 4.—31. VIII. 1933, L. Sheljuzhko leg. (KU); 24 ♂♂, 5 ♀♀, *Ibid.*, 220 m, 25. VII.—1. VIII. 1940, A. Tsvetajev leg. (ATs); 1 ♂, Teberda, fluv. Muchu, 24. VII. 1916, G. Pashin leg. (ATs); 1 ♂, Bakuriani, 23. VII. 1923, G. Pashin leg. (ATs); 41 ♂♂, 8 ♀♀, Georgia, Bakuriani, 1500 m, 9. VII. 1976, 27. V. 1977, Y. Nekrutenko leg. (YN); 1 ♂, Georgia, Adzhartskhali prope Bakuriani, 1500 m, 26. V. 1977, Y. Nekrutenko leg. (YN).

At present two populations of *A. (U) anteros*, determinable as ssp. *dombaiensis* are known: topotypic and that of Bakuriani, situated ca. 250 km to SE from Dombai, in the mountains of Transcaucasia (Trialeti mountain range). It is interesting to note that specimens from Borzhomi (900–1000 m) and Abastumani (1200–1500 m), situated ca. 30 km to NW and ca. 60 km to E respectively, are similar, if not identical, with nominative subspecies. This fact indicates a lace-like distribution of different forms of *A. (U.) anteros* and should stimulate accumulation of more representative samples in future collecting.

Aricia (Ultraaricia) anteros altera (Züllich), comb. nov.

Lycaena anteros altera Züllich, 1929: 52; Bollow, 1932: 272. Type locality: SW Bulgaria, Mts. Rila, 1200 m.

As it may be seen from original description and Bollow's data, under the name *altera* Züllich is described a small dark coloured (esp. from underside) population or, rather, its second brood. Unfortunately, no material available to built-up a suggestion whether it represents subspecies or infrasubspecific form.

Aricia (Ultraaricia) crassipuncta (Christoph), stat. nov. (Figs. 4–7).

Lycaena anteros crassipuncta Christoph, 1893: 86. Type locality: "... Kasikoparan. Armeniae rossicae."

Lycaena anteros crassipuncta Christoph — Heyne, 1895: 759 (Kasikoparan); Staudinger & Rebel, 1901: 84 (Arm. m. or; Syr.); *Lycaena anteros crassipunctata* (sic) Christoph — Seitz, 1909: 311 ("armenische Exemplare"); *Lycaena anteros crassipuncta* Christoph — Miller, 1923: 99 (Kars, Kağizman: Novaja Nikolajevka 6000–8000', Mts. Tshutshkhur-Tsham and Akh-Bulakh 8000–9000').

Polyommatus anteros crassipuncta Christoph — de Lattin, 1950: 324 "... circa Kasikoparan. Armeniae rossicae."

(Turkey: Tatvan [vandarbani?]).

(Turkey: prov. Adana [vandarbani?]).

Aricia anteros crassipuncta (sic) Christoph — Higgins, 1966: 215
Aricia (Ultraaricia) anteros crassipunctata (sic) Christoph — Paulus & Rose, 1971: 10 (Lebanon: Sofar, Jabal Barouk, Laklouk 1500 m, Jabal Kesrouane 1700 m, Zedern von Becharré [*andarbani?*]).

Aricia (Ultraaricia) anteros crassipuncta Christoph — Korshunov, 1972: 365 (Transcaucasia).

Type material. The type series of two males is in the Collection of the Zoological Institute of the U.S.S.R. Academy of Sciences (Leningrad). The specimen shown in figs. 4–5 with its labels is here designated lectotype. It originally bears two labels: one blue, handwritten in black ink: “v. *Crassipunctata* *Chris.*”, another one white, square in shape, recto with bold black printed edges, handwritten in black ink: “[ad] *Kasikoparan*”, verso: 1 – 7 – 83 [14. VII. 1883, new style] *Chr.*” Designation label is handwritten in black Indian ink on red printed label “Lectotypus”: “*crassipuncta* *Christ. Y. Nekrutenko* design.” Another specimen, designated paralectotype, bears only locality label identic in shape and writing with that of the lectotype; verso: 4 – 8 – 82 *Chr.*”



Examined material. 3 ♂♂, Armenia, Alagöz [Aragats], Southern Slope, 7500–8000', 27. VII. 1934, M. Rjabov leg. (ZL); 2 ♂♂, *Ibid.*, 30. VII. and 5. VIII. 1934, M Rjabov leg (KU); ♀, *Ibid.*, 5. VIII. 1934, M. Rjabov leg. (KU).

Redescription. Christoph (1893: 86) provided a short description of male only that may be (and is!) a source of confusion: “*Alae griseo-virescentes, macula discocellulari incrassata; subtus dilute brunneae*”. An illustrated description given below may assist recognize of this outstanding species.

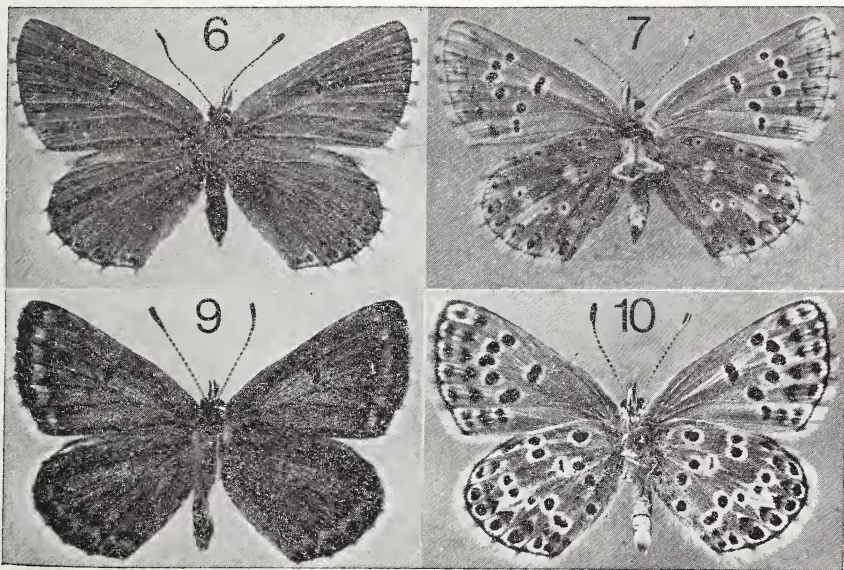
Male (figs. 4–5). Length of the forewing (base to apical tip, with fringe) of the lectotype – 14.5 mm. Forewing elongated, almost pointed at apex (in *anteros* and other species rounded). Wings upperside ashy-brown, richly powdered with pale bluish-gray scales, so that surface looks faded (in fresh specimens). Forewing bears bold, rhombo-ovoidal discal spot. Hindwing upperside with complete series of diffused dark submarginal spots, in some specimens with rusty-brown basal suffusion; discal spot less pronounced than on forewing. Fringes white, completely chequered at the end of each vein with black streaks. Underside ground colour pale brown-gray; forewing underside with bold discal and postdiscal spots, widely rounded with white, and with complete series of brown marginal spots, basally and distally suffused with dark scales. Hindwing underside pattern as a whole resembles that of some *Lysandra* (for instance, *coridon* Poda), bears well developed white streak in cell $M_3 - Cu_1$.



Male genitalia (fig. 8) similar to those of *A. (U.) anteros*, in lateral projection upper process of uncus forming almost straight line, lobe of the inferior process of uncus rounded (one specimen dissected).

Female (figs. 6–7). Wings upperside ground colour brownish-gray; hindwing bears complete series of rounded submarginal spots, each basally suffused with rusty-brown patch that, in its turn, closed basally with a black V-shaped cap. Forewing bears complete series of diffused orange-brown spots. Underside as in male, all pattern elements being more pronounced, ground colour vivid brown (coffee with milk).

Remarks. N. M. Romanoff (1884: 52) was the very first who drew attention to the distinctive characters of the Kasikoparan specimens of “*anteros*”; he stated: “Les mâles de Kasikoparan sont d’un bleu grisâtre comme la *L. dardanus*”. The description of this butterfly by Christoph was followed nine years later, probably on materials of the Romanoff’s collection. The difference between the name on the Christoph’s label and that given in the original description (“*crassipunctata*” and “*crassipuncta*” respectively) may be a result of typographic error. The published name, however, satisfies the requirements of Arts. 32 and 33 of the International Code of Zoological Nomenclature and needs no emendation. The fact that Seitz (1909: 311)

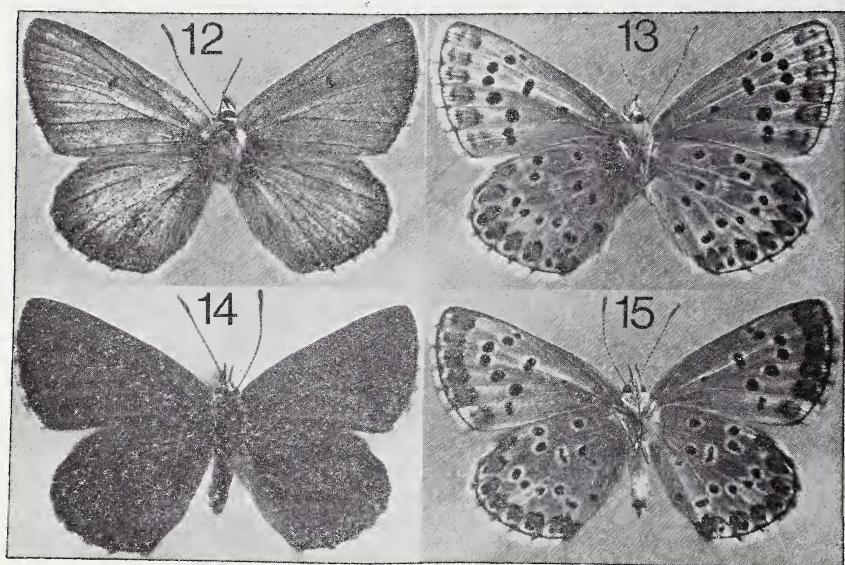


Figs. 6–7. *Aricia (Ultraaricia) crassipuncta* (Christoph) ♀, upper- and undersides. Armenia, Alagëz [Aragats], Southern slope, 7500–8000', 5. VIII. 1934, M. Rjabov leg. (KU).

Figs. 9–10. *Aricia (Ultraaricia) vandarbani* (Pfeiffer), ♂, upper- and undersides. Azerbaijan, Mts. Talysh, Lerik, 900 m, 3. VIII. 1977, Y. Nekrutenko leg. (YN).

employed the name "*crassipunctata* Chr." may be explained in supposition that he used Christoph's type material (co-types with his determination labels) or characters and name communicated in literis. In both cases Seitz seems to ignore original description and subsequent use of the published name by Heyne (Rühl & Heyne, 1895: 759) and Staudinger (Staudinger & Rebel, 1901: 84). The rarity of butterflies, together with inadequate description resulted in practical impossibility to recognize and identify individuals belonging to *A. (U.) crassipuncta*. One of three specimens in the collection of the Zoological Museum of the Kiev State University bears Sheljuzko's handwritten label: "*Lycaena* n. sp. ♂ (prope *anteros* Frr.) M. Rjabov det." This case illustrates that through more than a half of a century the most advanced lepidopterists were not familiar with this insect; under the absence of available type material and inadequate description is has been often confused with that in 1937 will be described under the name *vandarbani* Pfeiffer, as Christoph's text per se is fairly applicable to this species.

Aricia (Ultraaricia) vandarbani (Pfeiffer), comb. et stat. nov.
(Figs. 9–10).



Figs. 12–13. *Aricia (Ultraaricia) orpheus* Nekrutenko, holotype ♂, upper- and undersides. Alibotuschgebirge 1600 m, 21. VII. 1929, A. K. Drenowski leg. (KU).

Figs. 14–15. *Aricia (Ultraaricia) orpheus* Nekrutenko, paratype ♀, upper- and undersides. Alibotuschgebirge 1600 m, 21. VII. 1929, A. K. Drenowski leg. (KU).

Lycaena hyacinthus vandarbani Pfeiffer, 1937: 35; *Lycaena anteros vandarbani* Pfeiffer, 1938: 395 [sensu Berichtigung], Ta. IV, Fig. 13–14. Type locality: Iran sept. "Elbursgebirge, Gruppe Tacht in Suleiman, Hochtal Vandarban, 21–2200 m".

Aricia crassipuncta bassoni Larsen, 1974: 172–174, pl. 161 (Lebanon, Jabal Qammoua 1800 m) syn. nov.

Examined material. 27 ♂♂, 8 ♀♀, Azerbaijan Sov., Mts. Talysh, Lerik, 5–6. V. 1970, A. Tsvetajev leg. (ATs); 15 ♂♂, Ibid., 15–19. V. 1974, L. Nikolajevsky leg. (ATs); 25 ♂♂, 14 ♀♀, Ibid., 900–1100 m, 3–7. VIII. 1977, 34 ♂♂, 8 ♀♀; Ibid., 12. V. 1978, Y. Nekrutenko leg. (YN).

Both Pfeiffer (1937: 35) and Larsen (1974: 172–174) provided detailed and well illustrated descriptions good enough to assure reliable determination. The Lebanese population of *A. (U.) vandarbani* may represent a separate subspecies (*bassoni* Larsen), but as it can be seen from the mentioned text and illustrations, it appears identic with specimens I have examined from Lerik. In this case, incorrect species assignment is the result of authors' infamiliarity with *A. (U.) crassipuncta*.

Male genitalia (fig. 11). The less developed lobe of the inferior process of uncus is characteristic, otherwise as in *A. (U.) anteros* (10 specimens dissected). This peculiarity suggested the closer relationship of *A. (U.) vandarbani* to the species of *Aricia* (s. str.) than to *anteros* and *crassipuncta*; this agrees also with similarity in the wing pattern (presence of orange submarginal lunules and reduction of blue scaling on both wings upperside).

Aricia (Ultraaricia) orpheus sp. nov. (Figs. 12–15).

Types. Holotype ♂, SW Bulgaria, Mts. Alibotusch 1600 m, 21. VII. 1929, Al. K. Drenowski leg. (KU). Paratypes: 3 ♂♂, 4 ♀♀, Ibid.: ♂, ♀, Mts. Pirin, 1000 m, 11. VI. 1929, Al. K. Drenowski leg. (KU). White printed labels (recto framed) "Al. K. Drenowski", handwritten in black ink: "Alibotuschgebirge" and "Piringebirge", elevations and dates on verso. Type material is the property of the Zoological Museum of the Kiev State University.

Diagnosis. Large, similar in size to *Lysandra bellargus* Rott. Forewing underside with black spot in discal and R_2 – R_3 cells; hindwing underside with black spot in anal cell (body fold).

Description. Male (figs. 12–13). Length of the forewing of the holotype (base to tip) – 15.5 mm; variation in type series $\pm 0,5$ mm. Wings upperside bright, gleaming silvery blue, almost as in *Polymmatius erotides* Stgr. Forewing upperside with 1–1.5 mm wide marginal shade, bears small but contrast discal spot. Hindwing upperside with rounded diffuse black submarginal spots in each cell, bordered distally with C-shape white streaks, with vestigial, in most specimens completely disappeared brown suffusion over their basal limit; discal spot

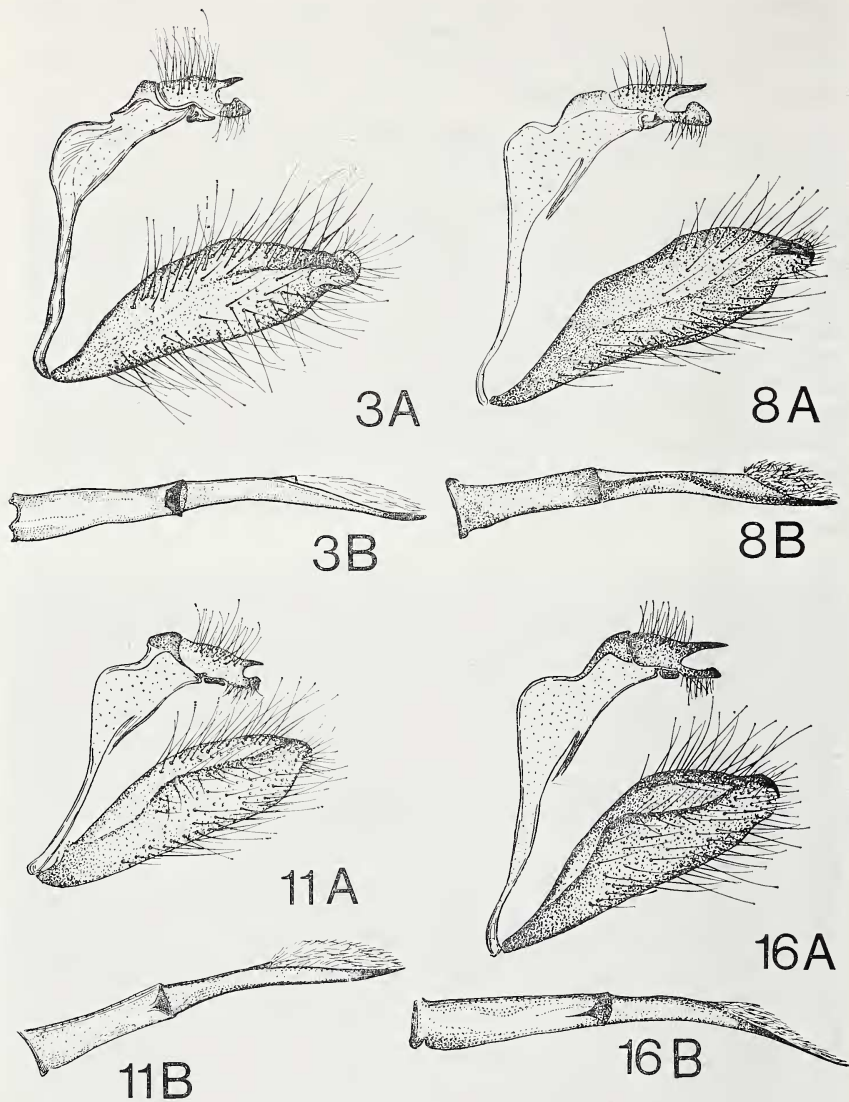


Fig. 3. *Aricia (Ultraaricia) anteros* cf. *dombaiensis* (Alberti), male genitalia: a – general view in lateral projection, phallus removed; b – phallus. Locality as in figs. 2–3. Note: In all figures of genitalia throughout this paper, phallus drawn at two times stronger enlargement than the figure of general view.

Fig. 8 *Aricia (Ultraaricia) crassipuncta* (Christoph) male genitalia: a – general view in lateral projection, phallus removed; b – phallus. Ar-

small, elongated. Fringes white, in forewing completely, in hindwing incompletely chequered. Wings underside ground colour pale ashy-gray. Forewing underside bears black, ringed with white, spot in discal cell; in two specimens this spot is present on one wing only — in this case opposite side wing bears some black scales visible with a lens (the lack of complete disappearance): here also present a complete series of bold, widely rounded with white postdiscal spots, including spots in R_2-R_3 and in Cu_2-2A , and complete row of submarginal orange spots. Hindwing underside with vestigial blue basal suffusion, bears well developed black spot in anal cell (body fold). Postdiscal and submarginal spots bold, presented in complete series.

Male genitalia (fig. 16) surprizingly similar to that of *A. (U.) vandarbani* with its narrow, elongated inferior process of uncus and vestigial lobe. Both processes of uncus, however, are notably longer than in vandarbani and narrower than in other species.

Female (figs. 14–15). Wings upperside dark-brown, with complete series of orange submarginal lunules, like *Aricia agestis* (Denis & Schiffermüller). Forewing bears well pronounced black discal spot. On hindwing upperside this spot absent, this wing bears complete series of black submarginal spots, rounded basally and distally with vivid brown lunules. Wings underside as in male, all pattern elements bold, ground colour brownish.

Distribution. *A. (U.) orpheus* is known so far from the type locality only and the habitat is unknown. It seems to occur in a restricted area near the Western limits of *A. (U.) anteros* range and these two species may occur in sympatry. However, the distributional picture of *A. (U.) anteros* in the Balkan Peninsula is not clear, and there are only three reliable records for Bulgaria (Buresch & Tuleschkow, 1930: 164; Tuleschkow, 1930: 136; Züllich, 1929: 52; for comprehensive bibliography on the Lepidoptera of Bulgaria and adjoining countries up to 1943 see Buresch & Tuleschkow, 1943: 161–174).

Remarks. The specimens that served as the type material were collected by Al. K. Drenowski, who was a member of the Royal Natural

menia, Alagöz [Aragats], Southern slope, 7500–8000', 5. VIII. 1934, M. Rjabov leg. (KU).

Fig. 11. *Aricia (Ultraaricia) vandarbani* (Pfeiffer), male genitalia: a — general view in lateral projection, phallus removed; b — phallus. Locality and date as in figs. 9–10.

Fig. 16. *Aricia (Ultraaricia) orpheus* Nekrutenko, holotype ♂, genitalia: a — general view in lateral projection, phallus removed; b — phallus.

History Institute (Sofia) expedition exploring the Lepidoptera of the Alibotush mountain range in 1929–1930. The most strange fact is that in the reports of this expedition Drenowski (1930, 1931, 1932) and Tuleschkow (1929, 1931) passed over in complete silence this quite unusual butterfly find (*anteros* is also absent in their faunal lists). It can just be supposed now that, getting into difficulties with determination and trying to avoid publication of misidentification, Drenowski turned for advice to Sheljuzhko, who was a recognized authority in Palearctic Lepidoptera, and sent him a round number (5 males and 5 females) of specimens. This way the material found itself in the collection of the Kiev State University. For unknown reasons it fell out of Sheljuzhko's attention and until now remained undescribed.

Acknowledgements. I would like to express my thanks to the following persons who allowed me to study the types and specimens in their charge and/or possession and who supplied me with comparative material for this study: Miss L. M. Pisareva of the Zoological Museum, Kiev State University, Mrs. I. L. Sukhareva of the Zoological Institute, U.S.S.R. Academy of Sciences (Leningrad), Mr. A. V. Tsvetajev and Mr. V. A. Ganson (Moscow), Mr. G. Hesselbarth (Diepholz, W. Germany). I am much indebted to Dr. O. Kudrna for editing of this paper.

References

- Alberti, B., 1969. Neue oder bemerkenswerte Lepidopteren-Formen aus dem Großen Kaukasus. Dt. ent. Z., 16: 189–203.
- Beuret, H., 1959. Zur Taxonomie einiger palaearktischer Bläulinge (Lep., Lycaenidae). Mitt. ent. Ges. Basel, 9: 80–84.
- Bollow, C., 1932. Gattung *Lycaena*. In: Seitz, A., Die Großschmetterlinge der Erde. Die palaearktischen Tagfalter. Supplement 1: 254–296. Stuttgart, A. Kernen.
- Buresch, I. & Tuleschkow, K., 1930. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. II. Izv. tsarsk. prirodnauch. Ins. Sofia 3: 145–248. (In Bulgarian, German summary).
- Buresch, I., & Tuleschkow, K., 1943. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. V. — *ibid.*, 16: 79–188.
- Christoph, H., 1881. Eine Reise im westlichen Caucasus. Stett. ent. Ztg., 42: 157–166.
- Christoph, H., 1893. Lepidoptera nova faunae palaearticae. Dt. ent. Z. Iris, 6: 86–96.

- Drenowsky, A. K., 1930. Verzeichnis der auf dem Alibotusch-Gebirge gesammelten Lepidopteren. *Izv. bulg. ent. družh.* 5: 107–124 (in Bulgarian, German summary).
- Drenowsky, A. K., 1931. Zweites Verzeichnis der auf dem Alibotusch-Gebirge gesammelten Lepidopteren. — *ibid.*, 6: 49–67.
- Drenowsky, A. K., 1932. Drittes Verzeichnis der auf dem Alibotusch-Gebirge gesammelten Lepidopteren. *Trud. bulg. prirodospit. družh.* 15/16: 82–83.
- Forster, W., 1938. Das System der paläarktischen Polyommata (Lep. Lycaen.). *Mitt. münch. ent. Ges.* 28: 97–118, 395.
- Freyer, C. F., 1838 (1839). Neuere Beiträge zur Schmetterlingskunde mit Abbildungen nach der Natur. Vol. 3. Augsburg.
- Hedemann, W. v., 1876. Beitrag zur Kenntnis der Lepidopterenfauna Transcaucasiens. *Horae Soc. ent. Ross.* 12: 153–157.
- Heyne, A., 1895. Nachträge und Berichtigungen. In: Rühl, F. & Heyne, A.: 689–832.
- Higgins, L. G., 1966. Check-list of Turkish butterflies. *Entomologist*, 99: 209–222.
- Higgins, L. G., 1975. The classification of European butterflies. London, Collins.
- Higgins, L. G., & Riley, N. D., 1970. A field guide to the butterflies of Britain and Europe. London, Collins.
- Korshunov, Y. P., 1972. Catalogue of diurnal butterflies [sic] of the fauna of the U.S.S.R. II. *Ent. Obozr.* 51: 352–368. (In Russian, English summary and title.)
- Larsen, T. B., 1974. Butterflies of Lebanon. Conseil National de la Recherche Scientifique, Beirut.
- Lattin, G. de (1950). Türkische Lepidopteren. I. *Istanb. Univ. Fen Fak. Mecm. (B)* 15: 301–331.
- Moucha, J., 1968. Zur Kenntnis der Schmetterlingsfauna der Grusinischen SSR (Lepidoptera). *Acta ent. Mus. natn. Pragae*, 38: 267–278.
- Miller, E. E., 1923. Lépidoptères, rapport des environs de Kagysman dans la district de Cars. *Izv. mosk. ent. Obshch.* 2: 81–118 (In Russian, French title).
- Miller, L. D., 1969 (1970). Nomenclature of wing veins and cells. *J. Res. Lepid.*, 8: 37–48.
- Paulus, H. F., & Rose, K., 1971. Zur Lycaenidenfauna des Libanon (Lepidoptera) (Schluß). *Ent. Z. Frankfurt a. M.* 81: 9–21.
- Pfeiffer, E., 1937. Notizen über persische Lycaenidae (Lepid.). *Mitt. münch. ent. Ges.*, 27: 31–36.
- Pfeiffer, E., 1938. Notizen über persische Lycaenidae (Lepid.). — *ibid.*, 28: 188–195, 395.
- Radde, G., 1899. Lepidoptera Caucasia. In: Radde, G. (ed.). Die Sammlungen des Kaukasischen Museums (Museum Caucasicum). I. (Zoologie): 419–441. Tiflis.
- Romanoff, N. M., 1844. Les Lépidoptères de la Transcaucasie. I. In: Romanoff, N. M. (ed.). Mémoires sur les Lépidoptères, 1: 1–92, pl. I–V. St.-Petersbourg.

- Rühl, F. & Heyne, A., 1895. Die palaearktischen Großschmetterlinge und ihre Naturgeschichte. I. Tagfalter. Leipzig, E. Heyne.
- Sauter, W., 1968. Hilfstabellen zur Bestimmung europäischer Lycaeniden (Lep. Lycaenidae). Mitt. ent. Ges. Basel 18: 1–18.
- Seitz, A., 1909. Lycaenidae. In: Seitz, A. Die Großschmetterlinge des palaearktischen Faunengebietes. 1. palaearktischen Tagfalter 1: 257–328. Stuttgart, F. Lehmann.
- Staudinger, O., 1879. Lepidopteren-Fauna Kleinasiens. Horae Soc. ent. Ross., 14: 176–482.
- Staudinger, O. & Rebel, H., 1901. Katalog der Lepidopteren des palaearktischen Faunengebietes (3. Aufl.), 1: Papilionidae-Hepialidae. Berlin, Friedländer.
- Tuleschkow, K., 1929. Beitrag zur Lepidopterenfauna des Alibotusch-Gebirges in Mazedonien. Trud. bulg. pirodospit. družh. 14: 151–165. (In Bulgarian, German summary).
- Tuleschkow, K., 1930. Erster Beitrag zur Lepidopterenfauna der Stadt Tirnowo und ihre Umgebung. Izv. bulg. ent. družh. 5: 125–162 [In Bulgarian, German summary].
- Tuleschkow, K., 1931. Zweiter Beitrag zur Lepidopterenfauna des Alibotusch-Gebirges in Mazedonien. — *ibid.*, 6: 189–202. (In Bulgarian, German summary).
- Züllich, R., 1929. Einige neue Lycaenidenformen aus meiner Sammlung. Z. österr. ent. Ver., 14: 51–53.